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EXAMINER

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
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1754

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Please find below and/or attached an Office communication concerning this application or proceeding.

Application/Control Number: 08/621,631

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 08/621,631

Filing Date: March 26, 1996

Appellant(s): BROWN ET AL.

**MAILED**  
JUN 16 2005  
**GROUP 1700**

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Thomas E. Kelley  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the brief on appeal filed 12-29-04.

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**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claim 10 stands rejected under 35 USC 103 as obvious over the article by Harbuck et al.

Claims 3, 11-13 and 16-20 stand objected to as based on rejected parent claims, and would be allowed if written in independent form.

Claims 14, 15, 21 and 22 are allowed.

**(4) *Status of Amendments After Final***

No amendment after final has been filed.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

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The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: The only issue remaining is whether claim 10 is obvious over Harbuck et al under 35 USC 103.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 3 and 10-22 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

"Scandium Recovery from a Tantalum Waste Residue: A Status Report" by D.D. Harbuck and G.R. Palmer, U.S. Bureau of Mines, pp 107-118 (1991).

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:  
Claim 10 stands rejected under 35 USC 103 as obvious over Harbuck et al. Harbuck et al disclose a process for extracting scandium values from a source material which includes scandium values, the process comprising the steps of leaching the source material with an aqueous solution of sulfuric acid to solubilize scandium values contained in the source material and generate an aqueous solution comprising the solubilized scandium values and a solid phase at least partially depleted in scandium,

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and extracting a scandium value from the aqueous solution. (See page 109, beginning with the third full paragraph, to page 115.) The difference between the process disclosed by Harbuck et al, and that recited in claim 10, is that Harbuck et al do not disclose a selective extraction of scandium from the aqueous solution, in that Table VI on page 114 shows that other metals, in addition to scandium, were extracted. In particular, Table VI shows that niobium, zirconium and iron were extracted with the scandium when employing DEHPA as the extractant. However Table VI shows that no tantalum was extracted and 100% of the scandium was extracted when employing DEHPA as the extractant. It would be prima facie obvious from such disclosure of Harbuck et al to treat a source material containing only scandium and tantalum as metallic values with sulfuric acid to generate an aqueous solution comprising solublized scandium values, and selectively extract scandium from the aqueous solution using DEHPA as the extractant, since Table VI would suggest that scandium would be selectively extracted from an aqueous solution containing scandium and tantalum values, when employing DEHPA as the extractant.


**(11) Response to Argument**

Appellant's argument, that DEHPA is not selective for scandium as it is operable to extract significant amounts of zirconium along with scandium when exposed to an aqueous solution comprising these metal values, is not convincing, since claim 10 does not require that the source material contain zirconium. Claim 10 embraces the treatment of a source material which contains only scandium and tantalum, and it would be obvious from Table VI of Harbuck et al that scandium would be selectively extracted

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from an aqueous solution containing only scandium and tantalum, when employing DEHPA as the extractant. Appellant's argument, that the fact that all the processes failed to selectively extract scandium metal values precludes a finding that Harbuck et al can be modified with a reasonable expectation of success to arrive at the invention recited in claim 10, is not convincing, since appellant has not explained why it would not be obvious to treat a material which contains only scandium and tantalum as metal values in the process of Harbuck et al. Appellant's argument, that the process of claim 10 is advantageous to the process of Harbuck et al since it precludes co-precipitation of zirconium as scandium is selectively extracted, is not convincing, since claim 10 does not require that the source material contain zirconium. Accordingly this advantage would not necessarily flow from the process recited in claim 10.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,  
  
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Primary Examiner  
Art Unit 1754

June 7, 2005

Conferees

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